

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-118. (*Cancelled*).

119. (*Previously presented*) A recombinant or synthetic polynucleotide encoding a protein that comprises an amino acid sequence at least 60% identical to SEQ. ID NO:118 when the entire sequence of said protein is optimally aligned with SEQ ID NO:118, wherein said protein contains each of the following structures in the order shown:

amino terminus;

either: Trp-R₁-X₇-R₁-R₁-R₂-X-Phe-Phe-Tyr-X-Thr-Glu-X₈-R₃-R₃-Arg-R₄-X₂-Trp
(SEQ. ID NO:16),

or: Trp-R₁-X₇-R₁-R₁-R₂-X-Phe-Phe-Tyr-X-Thr-Glu-X₉-R₃-R₃-Arg-R₄-X₂-Trp
(SEQ. ID NO:17);

X₃-Arg-X₂-Pro-Lys-X₃ (SEQ. ID NO:139)

X-Arg-X-Ile-X (SEQ. ID NO:143)

X₄-Phe-X₃-Asp-X₄-Tyr-Asp-X₂ (SEQ. ID NO:144)

Tyr-X₄-Gly-X₂-Gln-Gly-X₃-Ser-X₈ (SEQ. ID NO:146)

X₆-Asp-Asp-X-Leu-X₃ (SEQ. ID NO:147);

carboxy terminus;

with the proviso that the polynucleotide does not contain the consecutive nucleotides 1-2009 of SEQ ID NO:124;

wherein R₁ is Leu or Ile; R₂ is Gln or Arg; R₃ is Phe or Tyr; R₄ is Lys or His, X represents an unspecified amino acid and X_n represents the number n of consecutive unspecified amino acids; and wherein the encoded protein has telomerase catalytic activity when complexed with a telomerase RNA component.

120-128. (*Cancelled*).

129. (*Previously presented*) An isolated, synthetic, or recombinant polynucleotide encoding a protein that comprises an amino acid sequence at least 80% identical to SEQ. ID NO:118 when the entire sequence of said protein is optimally aligned with SEQ. ID NO:118, wherein said protein contains each of the following structures in the order shown:

amino terminus;

either: Trp-R₁-X₂-R₁-R₁-R₂-X-Phe-Phe-Tyr-X-Thr-Glu-X₈-R₃-R₃-Arg-R₄-X₂-Trp
(SEQ. ID NO:16),

or: Trp-R₁-X₇-R₁-R₁-R₂-X-Phe-Phe-Tyr-X-Thr-Glu-X₉ R₃-R₃ Arg-R₄-X₂-Trp
(SEQ. ID NO:17);

X₃-Arg-X₂-Pro-Lys-X₃ (SEQ. ID NO:139);

X-Arg-X-Ile-X (SEQ. ID NO:143);

X₄-Phe-X₃-Asp-X₄-Tyr-Asp-X₂ (SEQ. ID NO:144);

Tyr-X₄-Gly-X₂-Gln-Gly-X₃-Ser-X₈ (SEQ. ID NO:146);

X₆Asp-Asp-X-Leu-X₃ (SEQ. ID NO:147);

carboxy terminus;

wherein R₁ is Leu or Ile, R₂ is Gln or Arg, R₃ is Phe or Tyr, R₄ is Lys or His, X represents an unspecified amino acid, and X_n represents the number n of consecutive unspecified amino acids;

and wherein the protein has telomerase catalytic activity when complexed with a telomerase RNA component.

130. (*Previously presented*) An isolated, synthetic, or recombinant polynucleotide according to claim 129 encoding a protein comprising an amino acid sequence at least 95% identical to SEQ. ID NO:118, wherein said protein contains each of the following structures in the order shown:

amino terminus;

either: Trp-R₁-X₂-R₁-R₁-R₂-X-Phe-Phe-Tyr-X-Thr-Glu-X₈-R₃-R₃-Arg-R₄-X₂-Trp
(SEQ. ID NO:16).

or: Trp-R₁-X₇-R₁-R₁-R₂-X-Phe-Phe-Tyr-X-Thr-Glu-X₉ R₃-R₃ Arg-R₄-X₂-Trp
(SEQ. ID NO:17);

X₃-Arg-X₂-Pro-Lys-X₃ (SEQ. 1D NO:139);

X-Arg-X-lle-X (SEQ. ID NO:143);

X₄-Phe-X₃-Asp-X₄-Tyr-Asp-X₂ (SEQ. ID NO:144);

Tyr-X₄-Gly-X₂-Gln-Gly-X₃-Ser-X₈ (SEQ. ID NO:146);

X₆Asp-Asp-X-Leu-X₃ (SEQ. ID NO:147);

carboxy terminus;

wherein R₁ is Leu or lle, R₂ is Gln or Arg, R₃ is Phe or Tyr, R₄ is Lys or His, X represents an unspecified amino acid, and X_n represents the number n of consecutive unspecified amino acids;

and wherein the protein has telomerase catalytic activity when complexed with a telomerase RNA component.

131. *(Cancelled)*